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| Group | Number of Mice | Dosage **       | Survivors (days) | Increased Life Span (ILS) |
|-------|----------------|-----------------|------------------|---------------------------|
| I     | 10             | 0.002 ml fetuin | 1(31)            | 29%                       |
| II    | 10             | 0.02 ml fetuin  | 1(29)            | 17.2%                     |
| III   | 10             | 0.2 ml fetuin   | 8(58)            | 141%                      |
| IV    | 10             | 0.5 ml saline   | 0(24)            | —                         |

FIG.1

| Type of Fetuin           | Amount Required to Reach LD <sub>50</sub> |
|--------------------------|---|
| Fetuin + Zn              | 130 $\mu$ M                               |
| Supercharged Zinc Fetuin | 14.3 $\mu$ M                              |

FIG.2

| Type of Fetuin           | Amount Required to Reach LD <sub>50</sub> |
|--------------------------|---|
| Fetuin + Zn              | 60 $\mu$ M                                |
| Supercharged Zinc Fetuin | 19.6 $\mu$ M                              |

FIG.3



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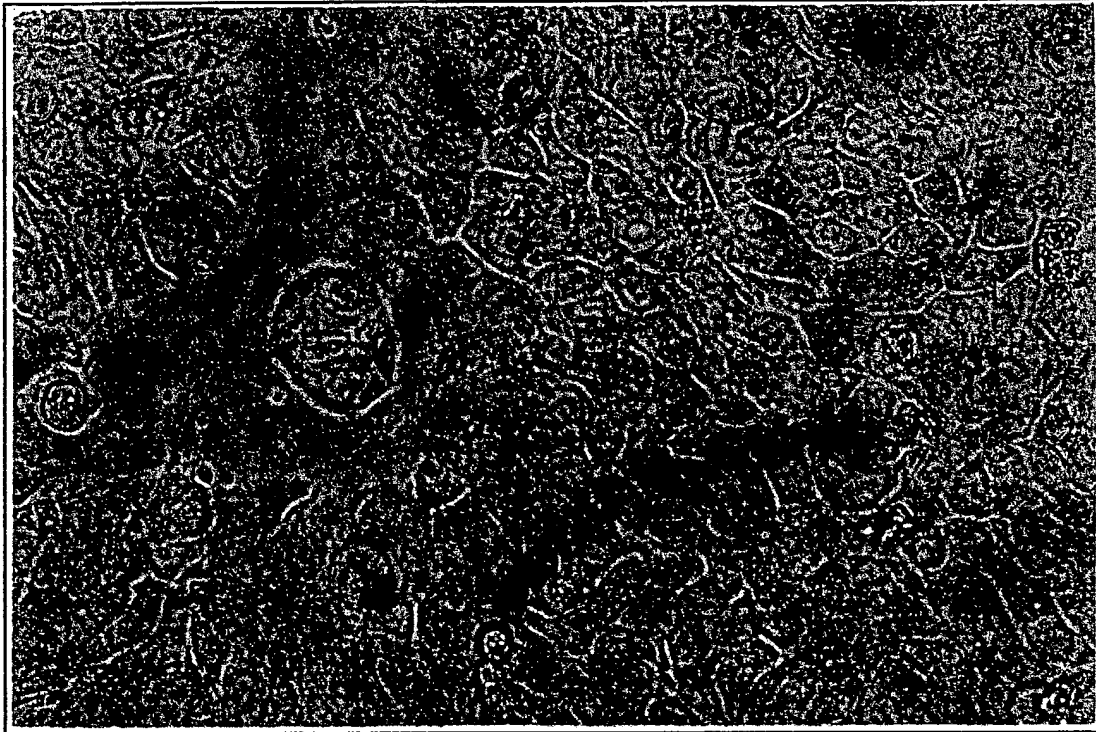


Fig. 35

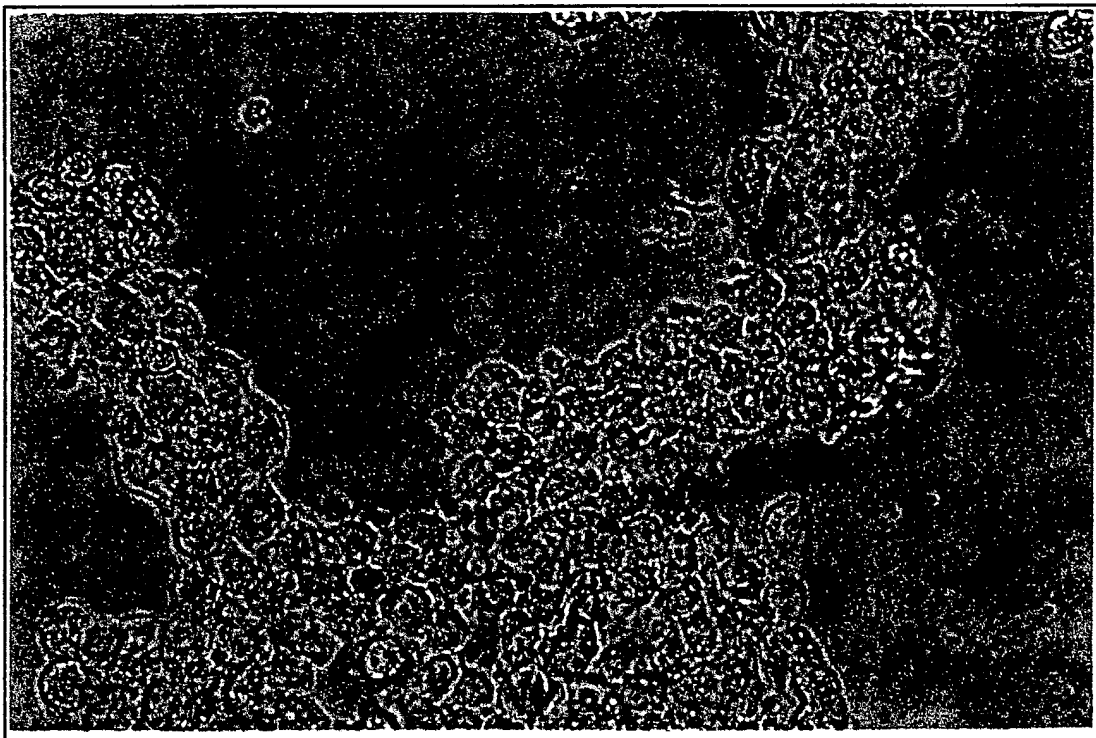


Fig. 36

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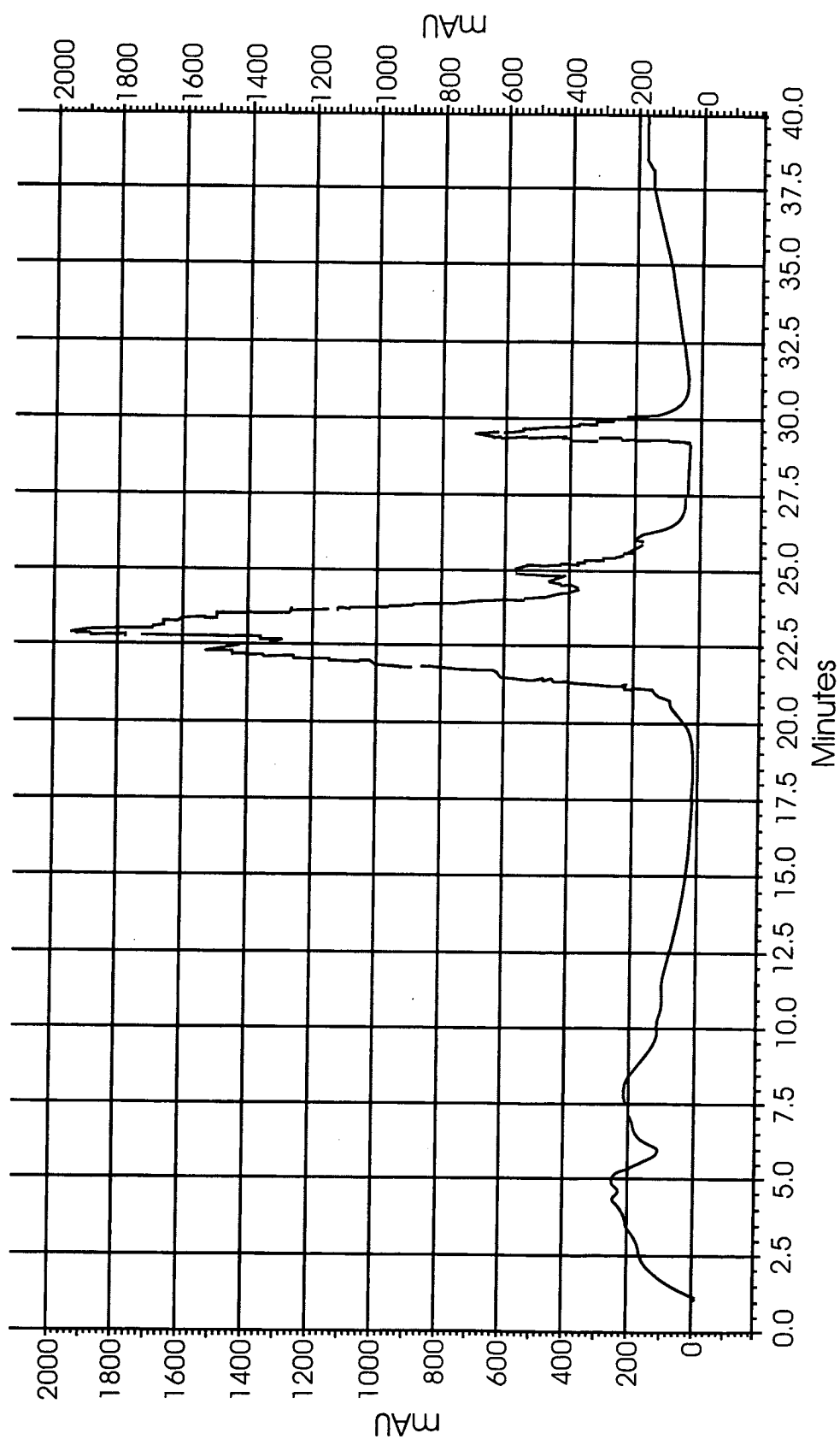


FIG. 34

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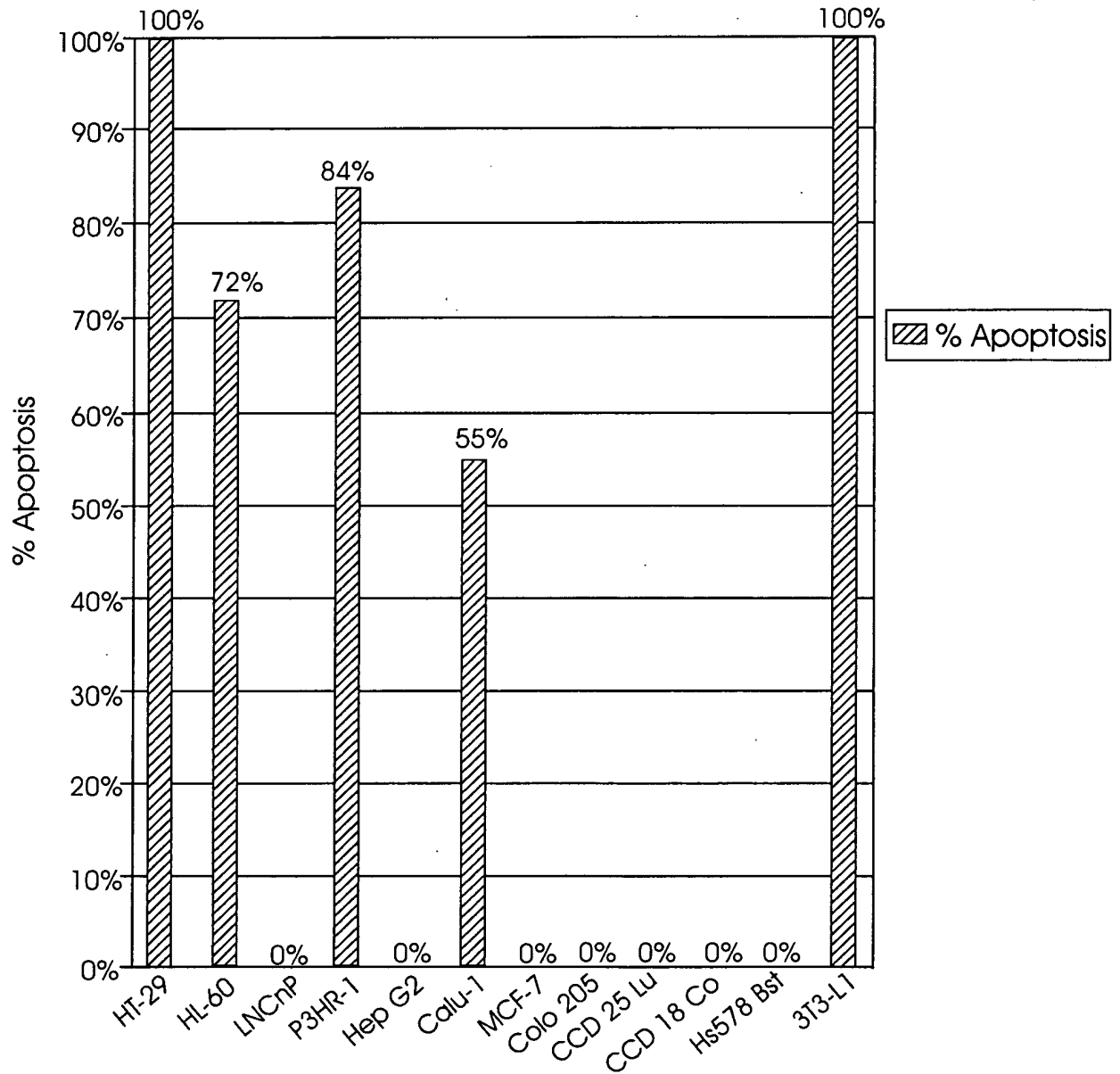


Fig. 33

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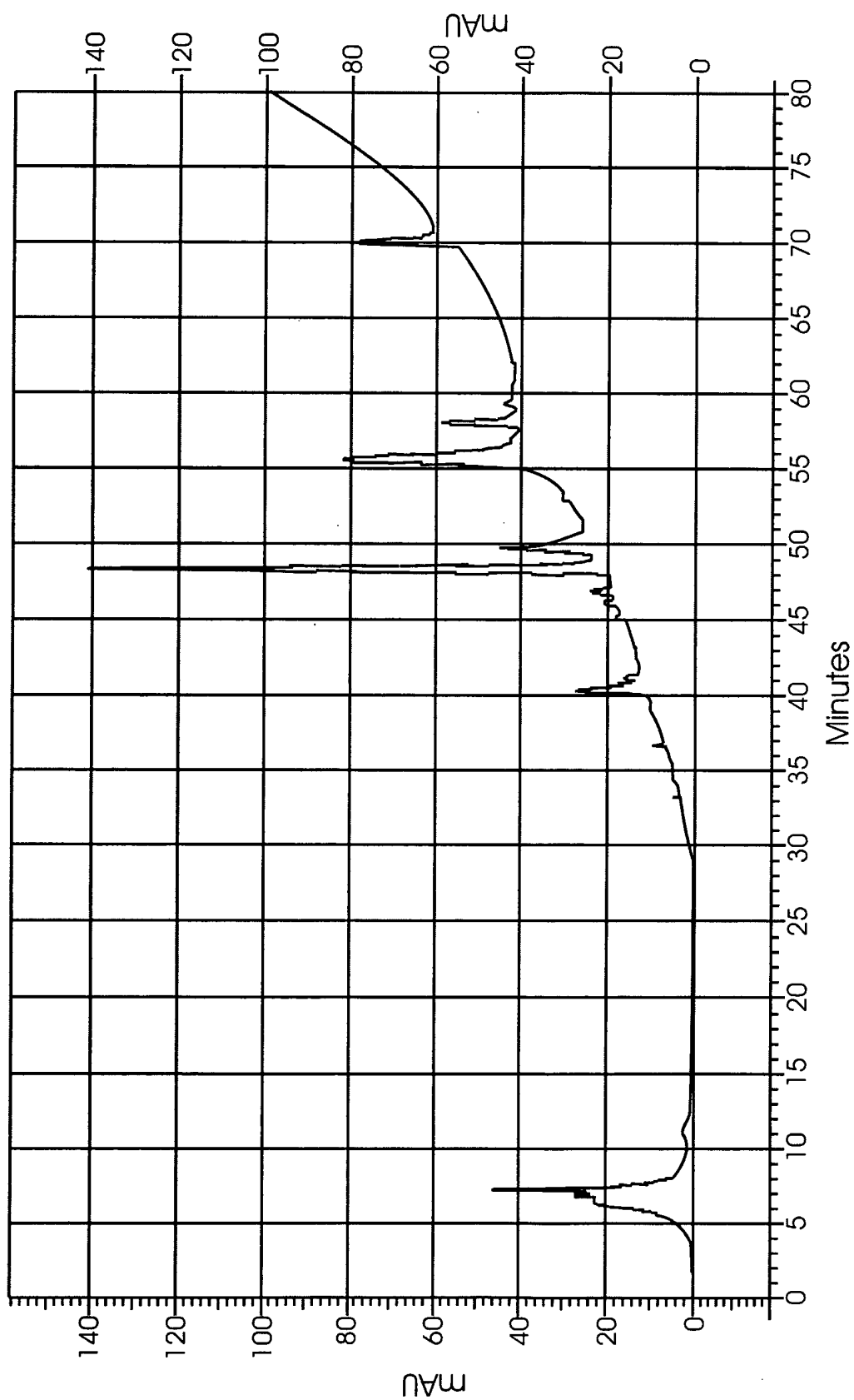


FIG. 32

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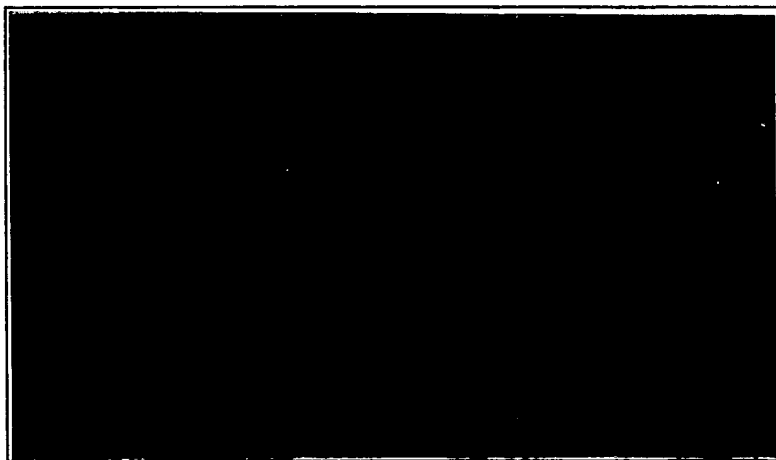


Fig. 30

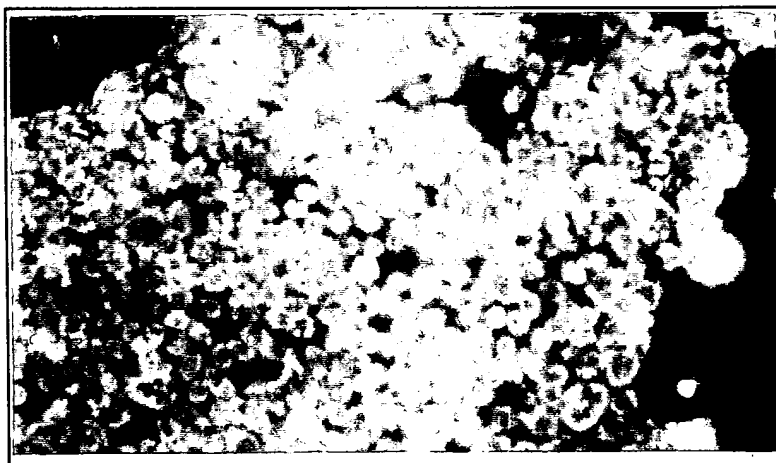


Fig. 31

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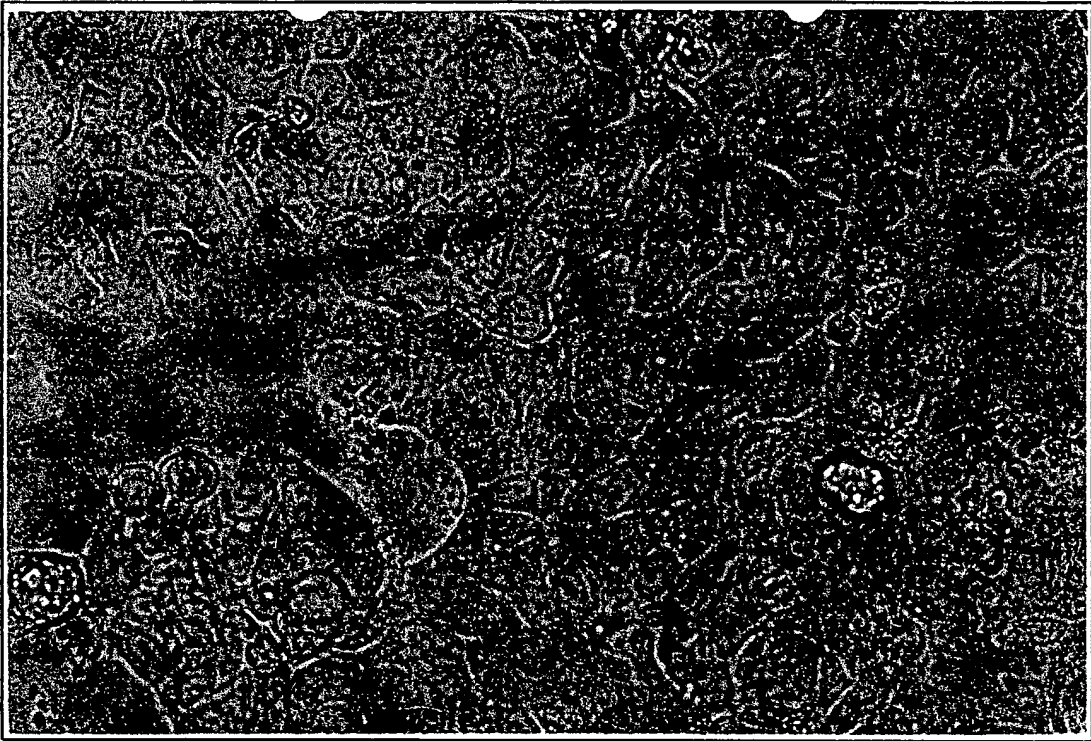


Fig. 28

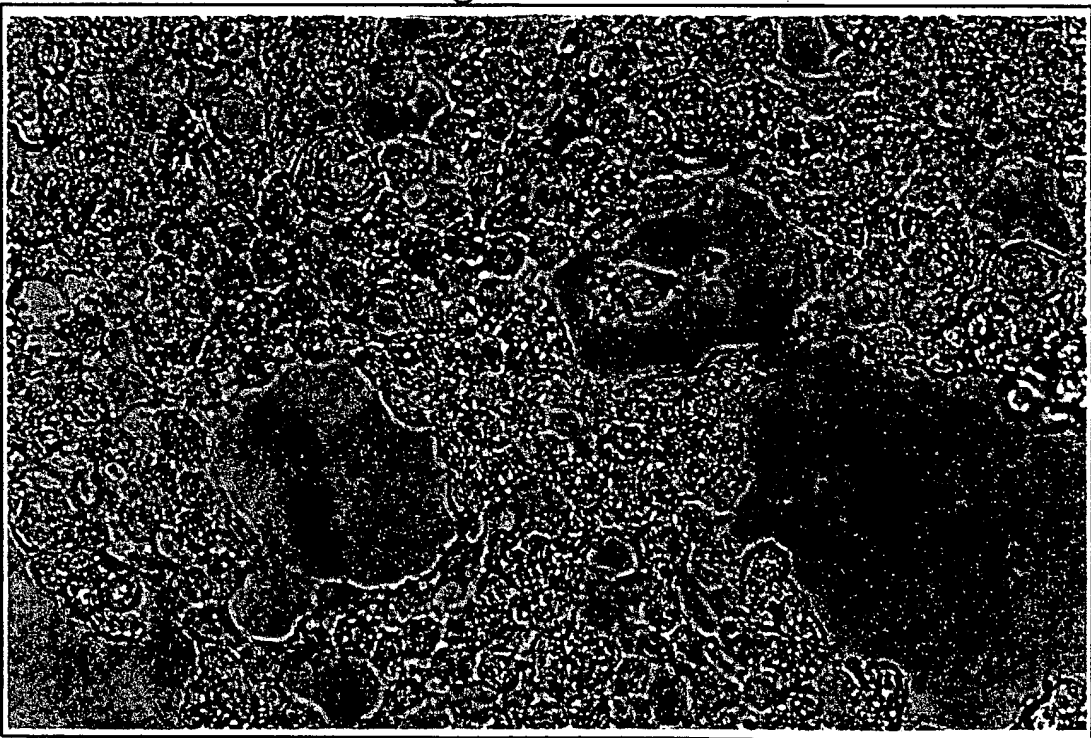


Fig. 29

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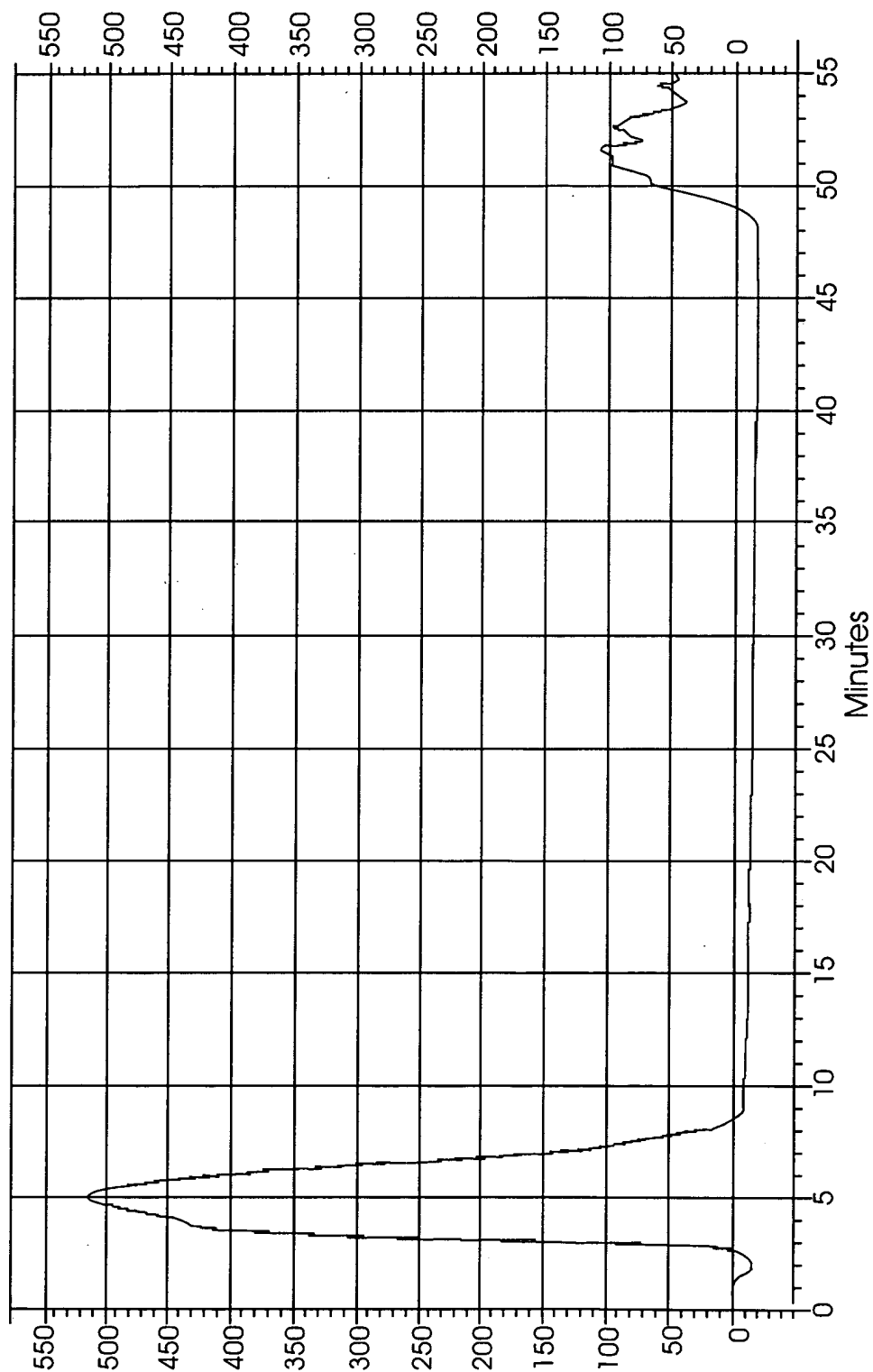


FIG. 27



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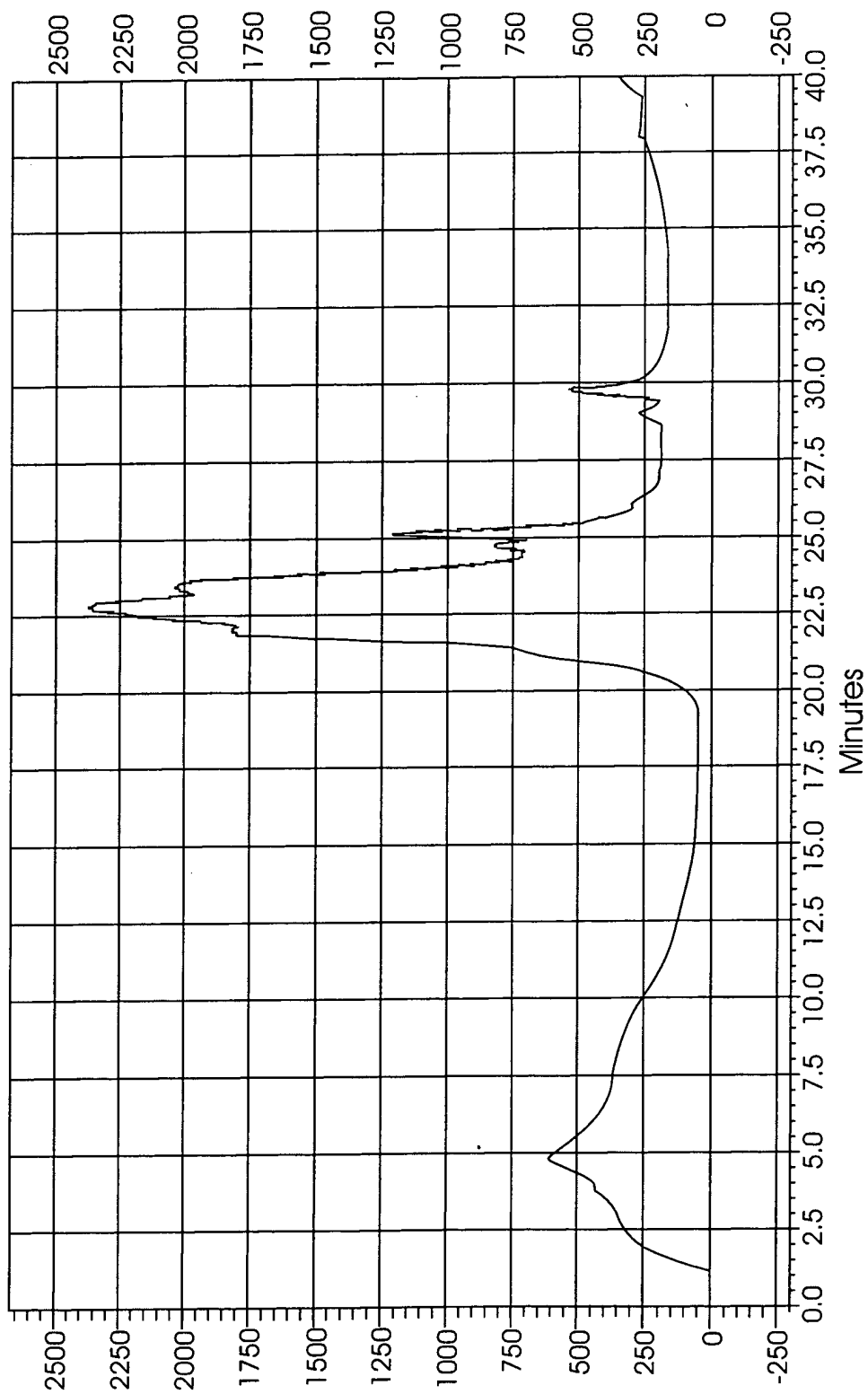


FIG. 26

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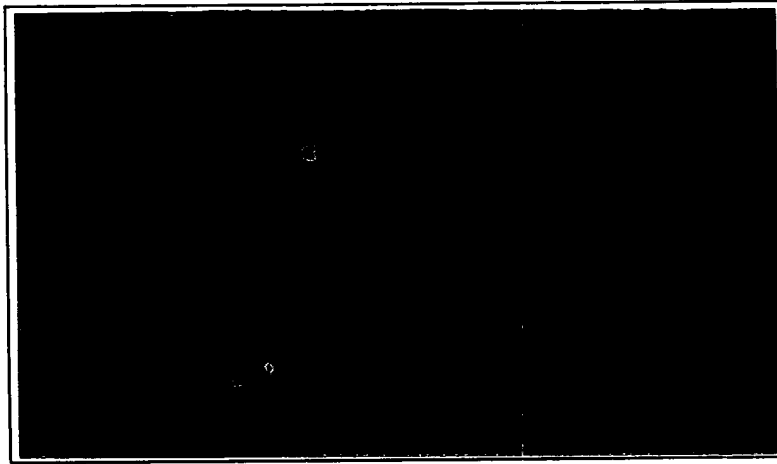


Fig. 24

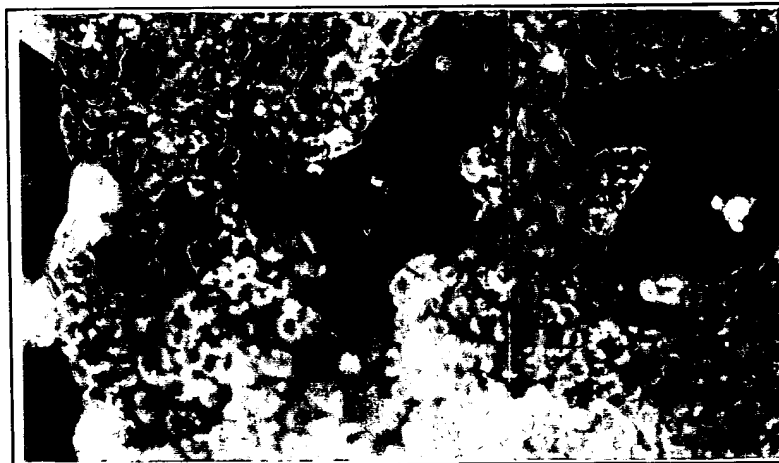


Fig. 25

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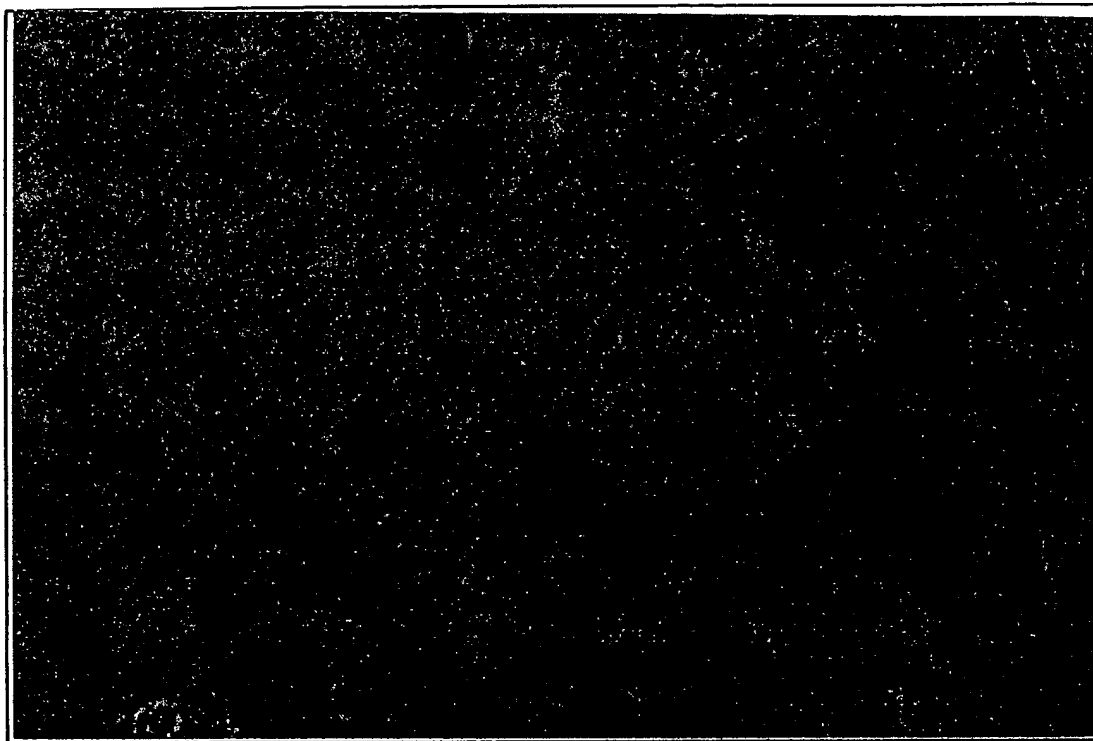


Fig. 22

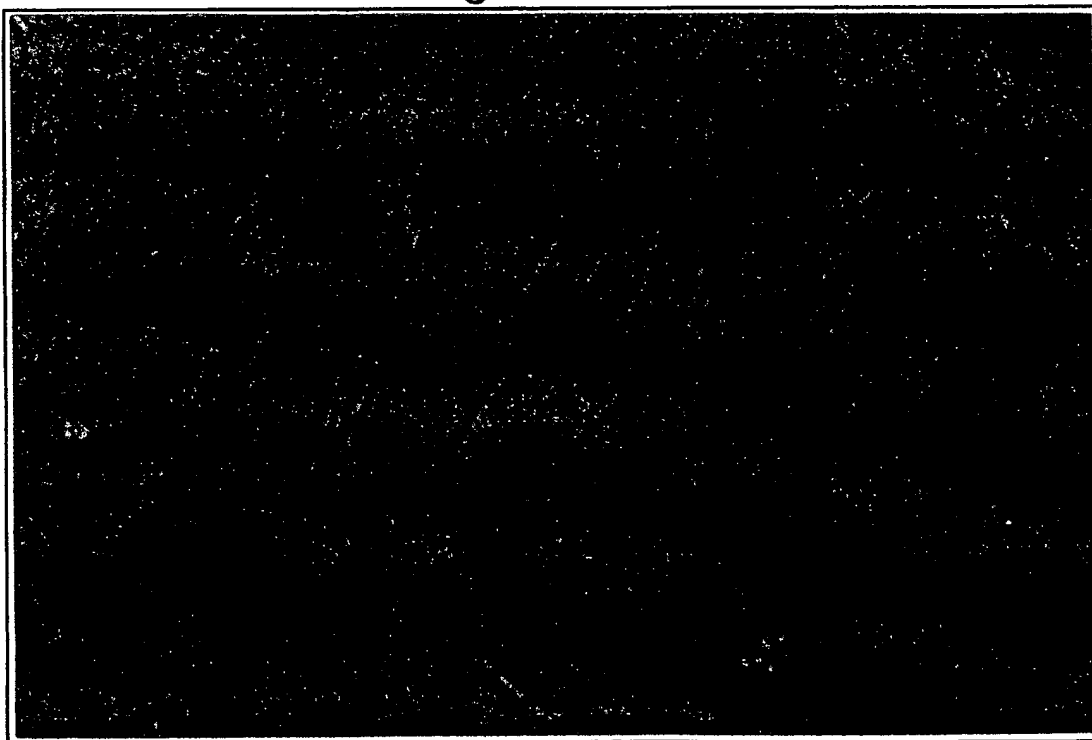


Fig. 23

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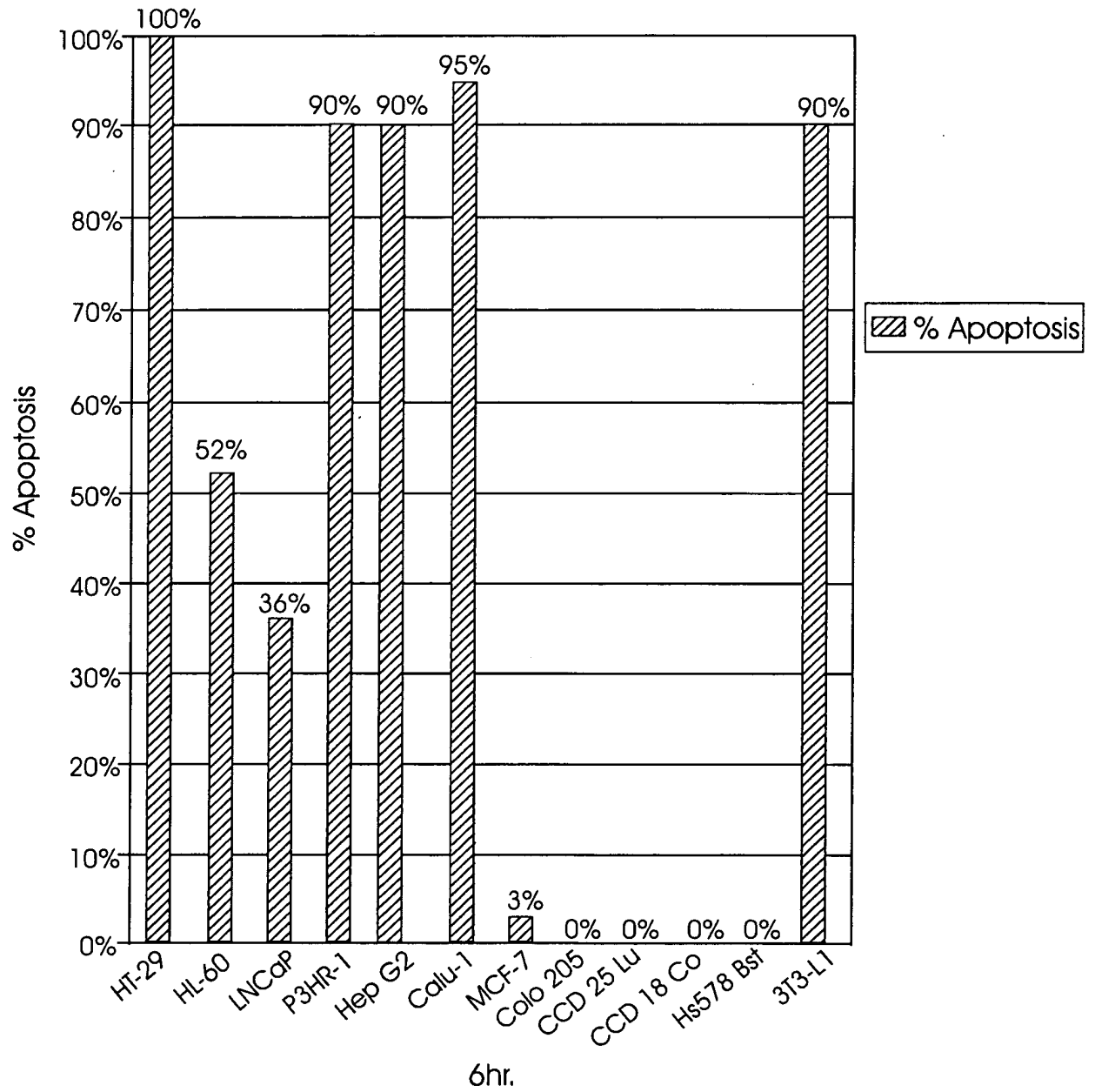


Fig. 21

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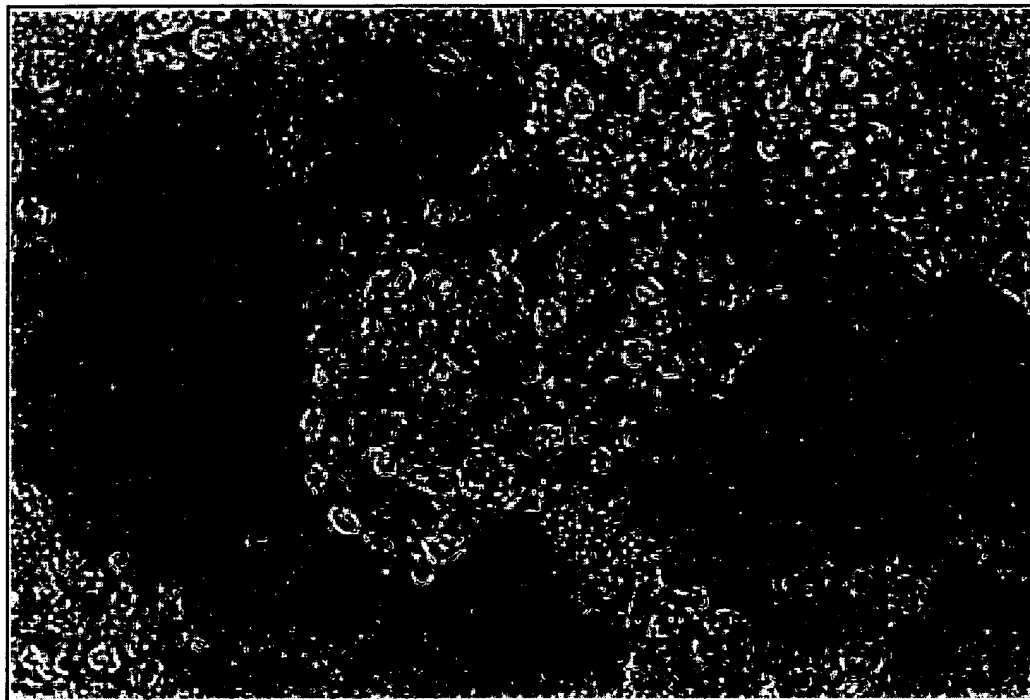


Fig. 19

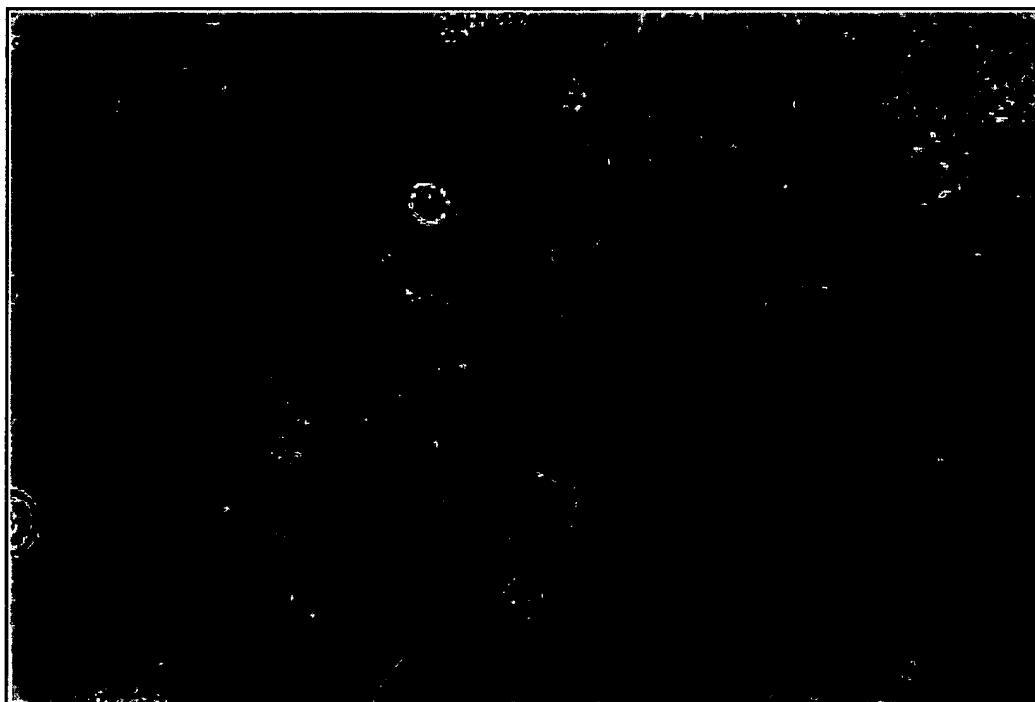


Fig. 20

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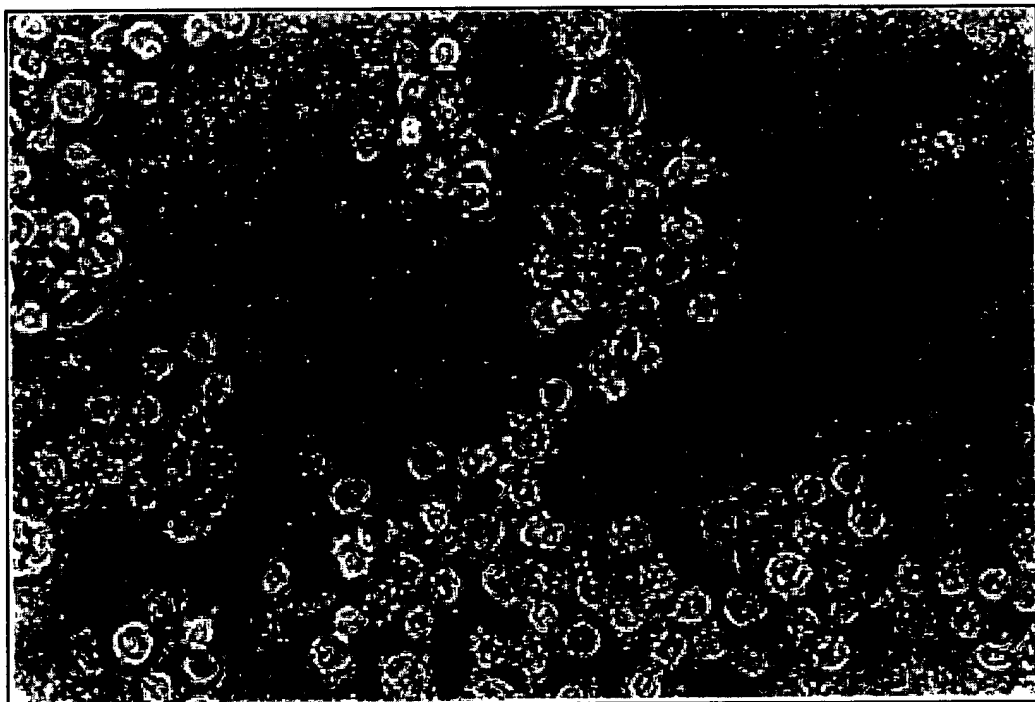


Fig. 17



Fig. 18

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Fig. 15

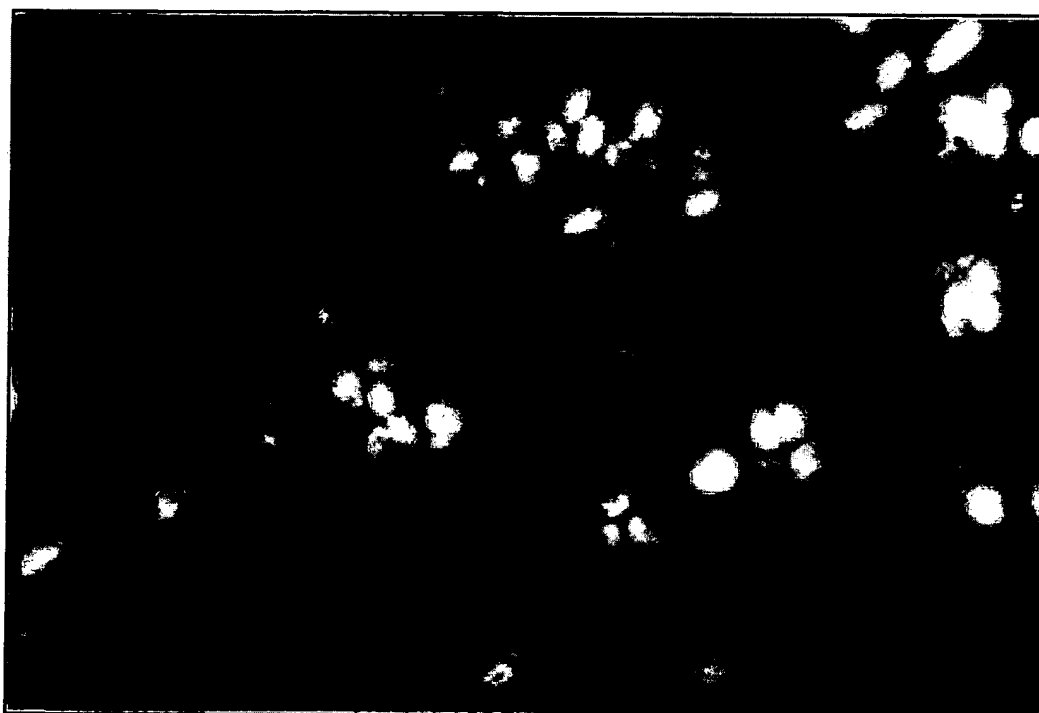
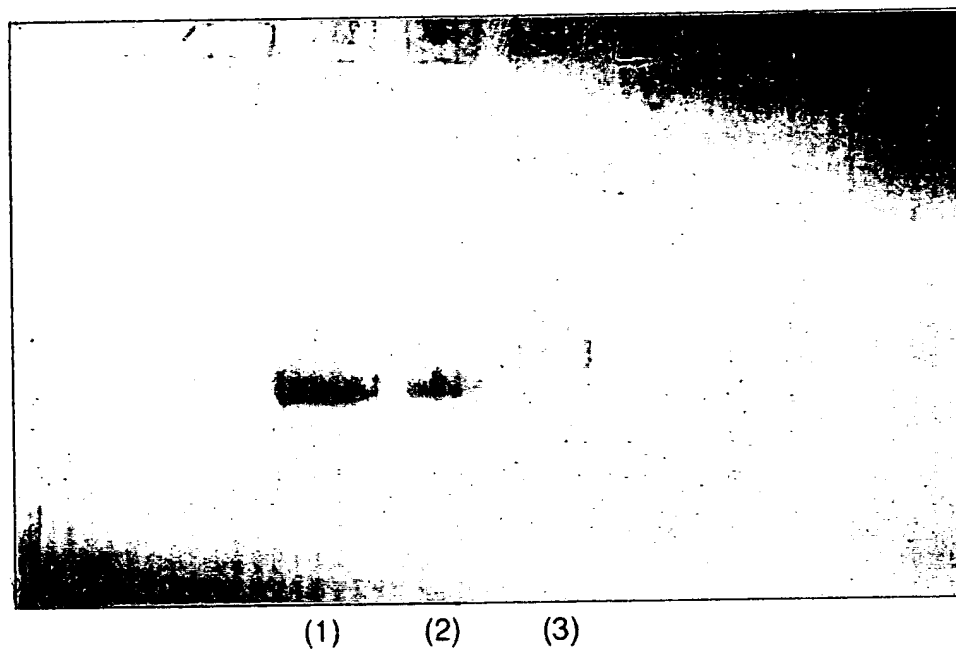


Fig. 16

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(1) Alpha 1 acid- glycoprotein (Sigma)

(2) Sample

(3) Alpha 2 HS-glycoprotein (Sigma)

Fig. 14



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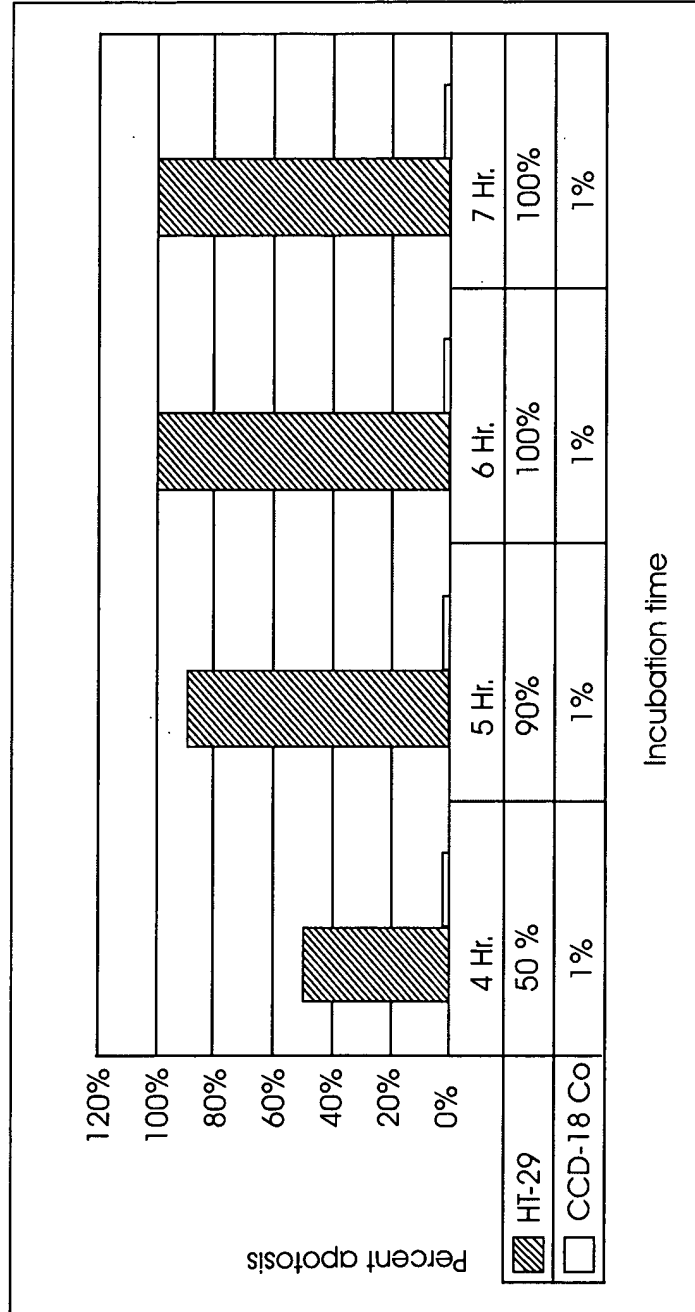


Fig. 12

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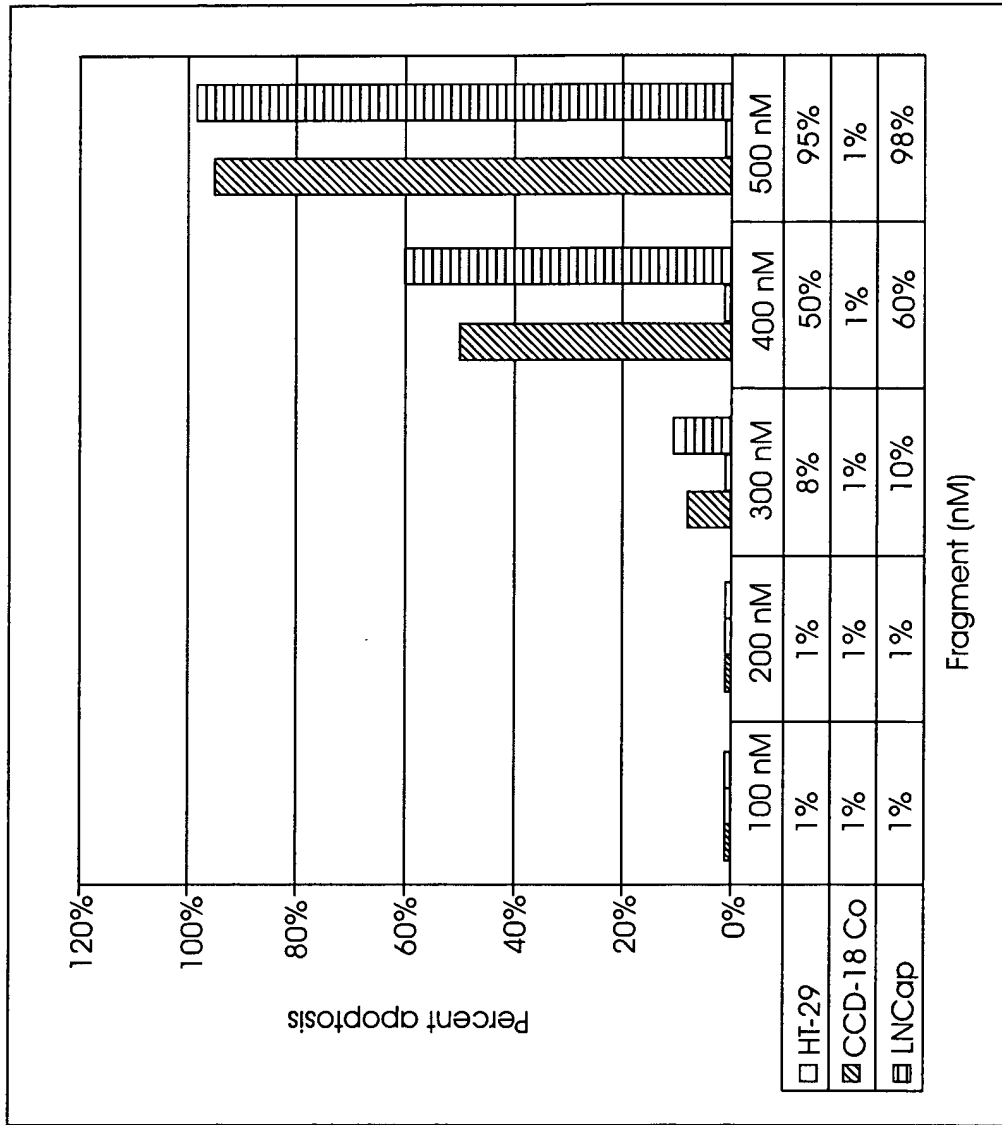


Fig. 11

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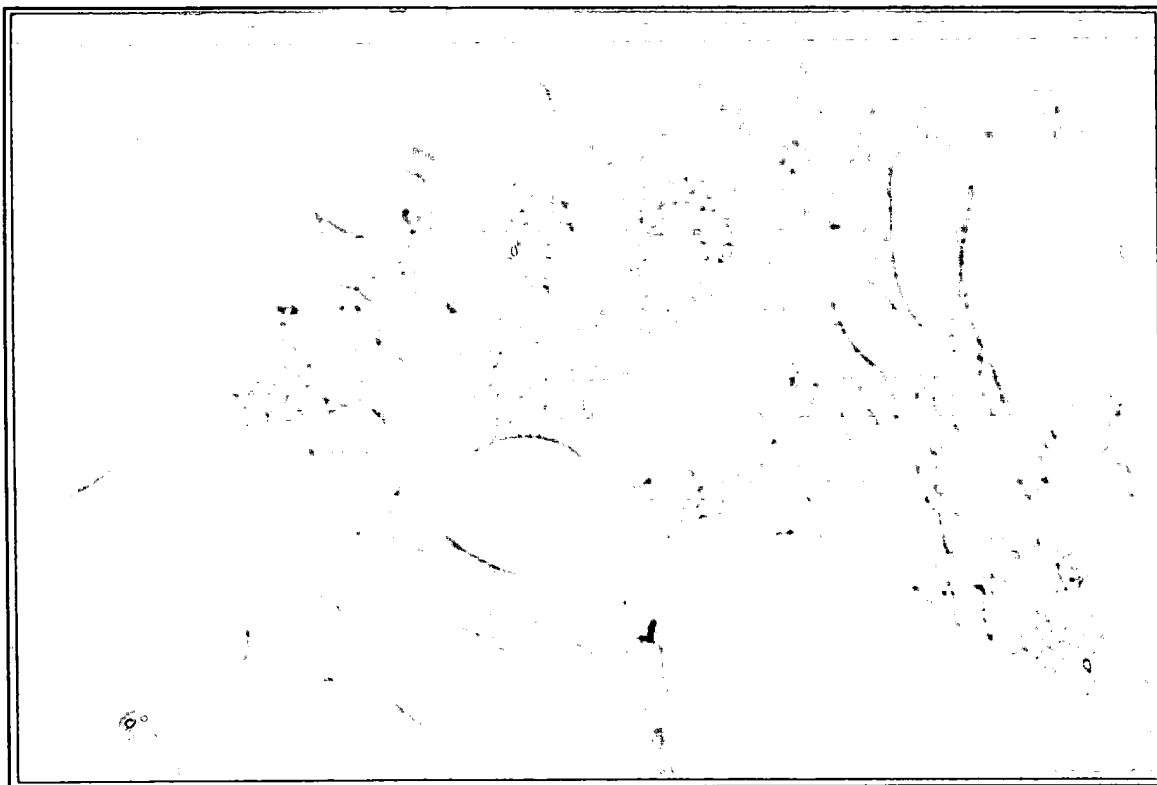


Fig. 9

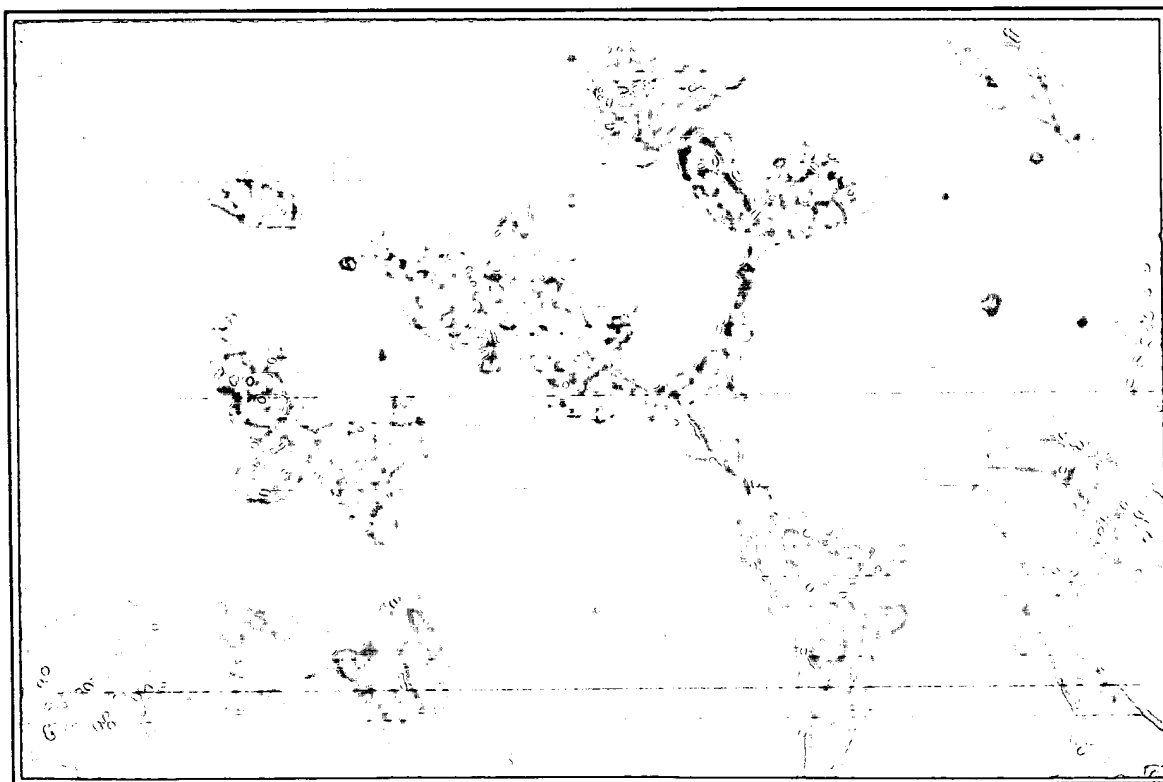


Fig. 10

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| <u>Experiment</u> | <u>Sample</u>                        | <u>Apoptosis (%)</u> |
|-------------------|--------------------------------------|----------------------|
| 1                 | Filtrate (10 $\mu$ l)                | 92%                  |
|                   | Filtrate (10 $\mu$ l) + proteinase K | 50%                  |
| 2                 | Filtrate (5 $\mu$ l)                 | 35%                  |
|                   | Filtrate (5 $\mu$ l) + proteinase K  | 0%                   |
| 3                 | Filtrate (10 $\mu$ l)                | 75%                  |
|                   | Filtrate (10 $\mu$ l) + proteinase K | 0%                   |

FIG. 8

| <u>Fetuin</u>                            | <u>LD<sub>50</sub></u>             |
|--|------------------------------------|
| Zinc Charged Fetuin (full length)        | LD <sub>50</sub> = 3-10 $\mu$ M    |
| Fetuin Fragment (amino acid no. 300-309) | LD <sub>50</sub> = 0.3-0.4 $\mu$ M |
| Fetuin Fragment (amino acid no. 300-307) | LD <sub>50</sub> >> 1 mM           |
| Fetuin Fragment (amino acid no. 310-317) | LD <sub>50</sub> >> 1 mM           |

FIG. 13

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Fig. 6

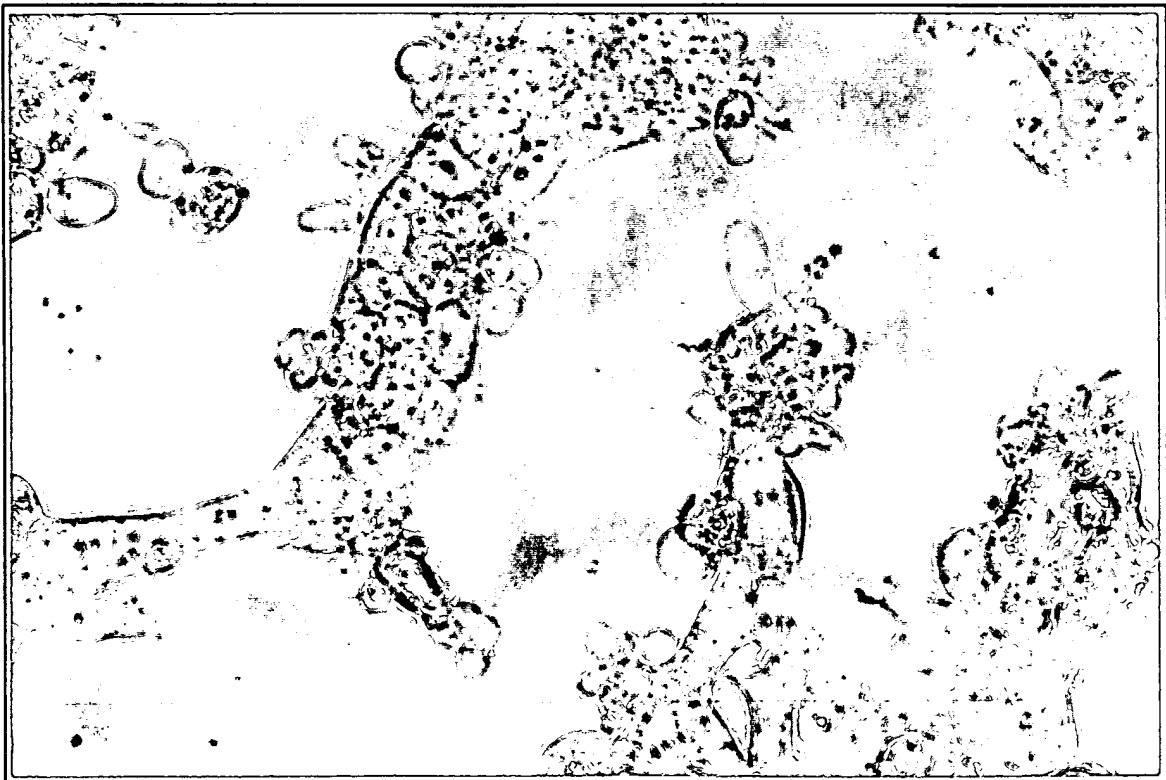


Fig. 7

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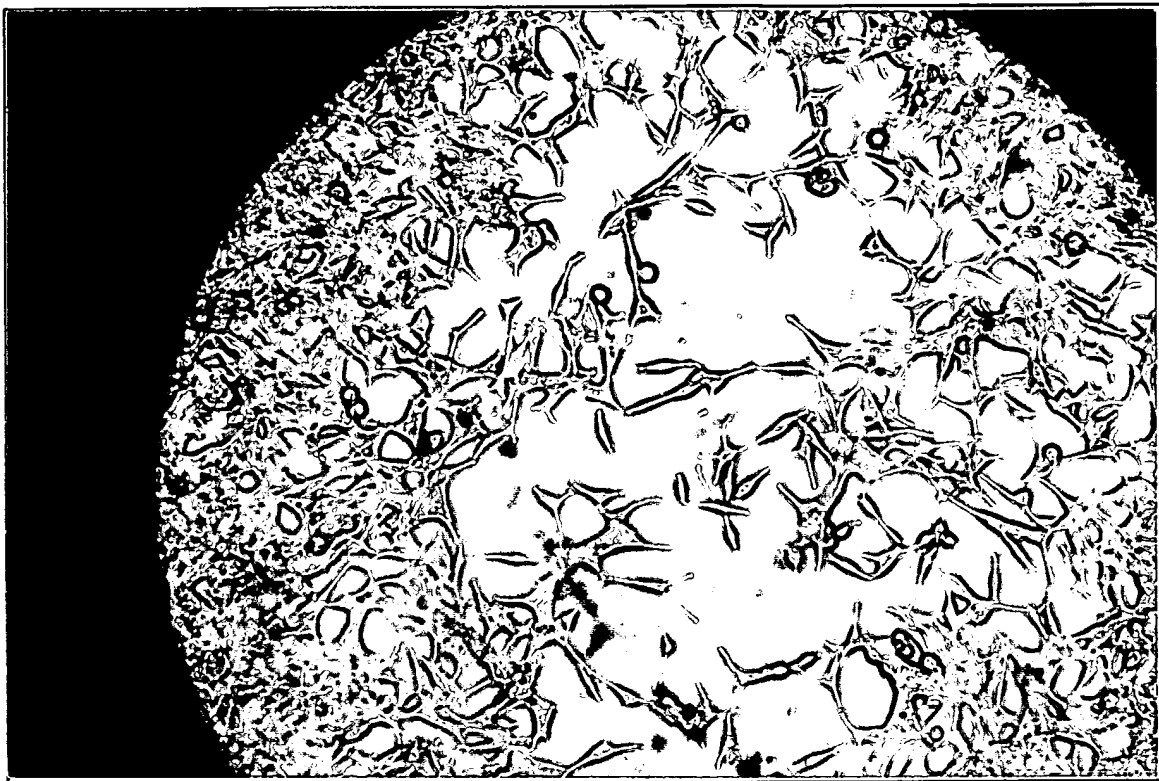


Fig. 4

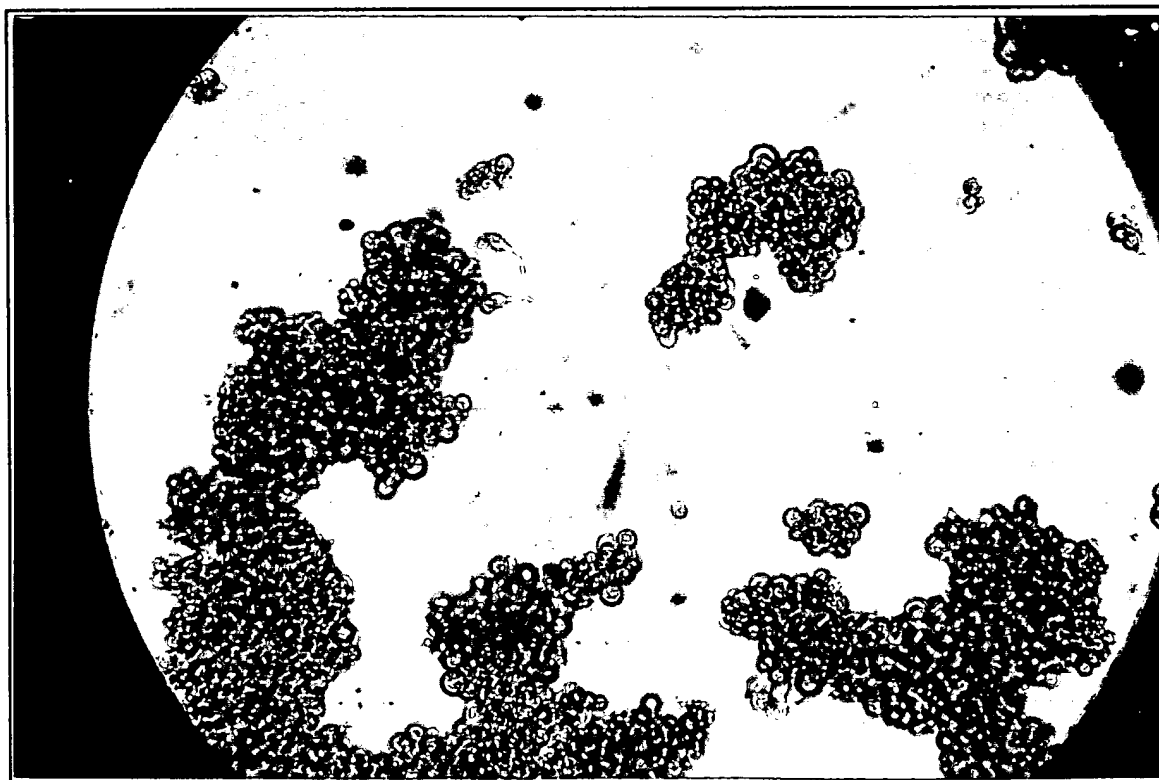


Fig. 5

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